

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM NO. 01-001  
FOR  
UNITED STATES NAVY - NAVY REGION SOUTHWEST, OWNER  
BROWN AND ROOT SERVICES CORPORATION, OPERATOR  
U.S. NAVAL AIR FACILITY, WASTEWATER TREATMENT PLANT  
West of El Centro – Imperial County

Location of Discharge: N ½ of Section 25, T15S, R12E, SBB&M

MONITORING

1. The collection, preservation and holding times of all samples shall be in accordance with United States Environmental Protection Agency approved procedures. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted by a laboratory certified for such analysis by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR 136), promulgated by the United States Environmental Protection Agency.
2. Compliance with the discharge limitations shall be determined at the end of the treatment process or as specified in the Board Order.
3. If the facility is not in operation, or there is no discharge during a required reporting period, the discharger shall either forward a letter, or write a notation on the required monthly monitoring report to the Regional Board, indicating that there has been no activity during the required reporting period.

INFLUENT MONITORING

The wastewater influent to the treatment facilities shall be monitored as follows:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
20°C BOD <sub>5</sub>	mg/L <sup>1</sup>	24-Hr. Composite	Weekly
Total Suspended Solids	mg/L	24-Hr. Composite	Weekly

EFFLUENT MONITORING

---

<sup>1</sup> mg/L – milligrams-per-Liter

A sampling station shall be established at the point of discharge and shall be located where representative samples of effluent can be obtained. Wastewater discharged into the unnamed tributary of the New River shall be monitored for the following constituents:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Daily Effluent Discharge	MGD <sup>2</sup>	Flow Meter Reading	Daily <sup>3</sup>
pH	-----	Grab	Daily
Chlorine Residual	mg/L	Grab	Daily
Total Suspended Solids	mg/L	24-Hr. Composite	Weekly
20°C BOD <sub>5</sub>	mg/L	24-Hr. Composite	Weekly
Temperature	°F	Grab	Weekly
Fecal Coliform	MPN <sup>4</sup> /100 ml	Grab	Five Samples per Month
Nitrates as Nitrogen (N)	mg/L	24-Hr. Composite	Monthly
Nitrites as N	mg/L	24-Hr. Composite	Monthly
Ammonia Nitrogen as N	mg/L	24-Hr. Composite	Monthly
Total Nitrogen as N mg/L	24-Hr. Composite	Monthly	
Total Phosphate as Phosphorous (P)	mg/L	24-Hr. Composite	Monthly
Ortho-Phosphate as P	mg/L	24-Hr. Composite	Monthly
Total Dissolved Solids	mg/L	24-Hr. Composite	Monthly
Oil and Grease	mg/L	Grab	Quarterly
Volatile Organic Compounds (EPA Methods 624/625)	µg/L <sup>5</sup>	Grab	Quarterly

<sup>2</sup> MGD – Million Gallons-Per-Day

<sup>3</sup> Reported monthly with monthly average daily flow

<sup>4</sup> MPN = Most Probable Number

<sup>5</sup> µg/L - micrograms-per-Liter

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Sampling stations shall be as follows:

<u>Station</u>	<u>Description</u>
R-1	Not to exceed 100 feet upstream from the point of discharge. A greater distance may be acceptable provided the discharger submits proper justification that the prescribed distance is inaccessible.
R-2	Not to exceed 200 feet downstream of the discharge pipe outlet.

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Temperature	°F	R-1, R-2	Monthly
Dissolved Oxygen	mg/L	R-1, R-2	Monthly
pH	----	R-1, R-2	Monthly
Total Dissolved Solids	mg/L	R-1, R-2	Monthly

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions at Stations R1 and R2. Attention shall be given to the presence or absence of:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>a. Floating or suspended matter</li> <li>b. Discoloration</li> <li>c. Aquatic life</li> </ul> | <ul style="list-style-type: none"> <li>d. Visible film, sheen or coating</li> <li>e. Fungi, slime, or objectionable growths</li> <li>f. Potential nuisance conditions</li> </ul> |
|--|--|

Notes on receiving water conditions shall be summarized in the monitoring report.

2,3,7,8- TETRACHLORODIBENZO-P-DIOXIN (TCDD)  
EQUIVALENT MONITORING

By May 18, 2001, the discharger shall begin monitoring its effluent for the presence of 17 (Toxic equivalency factors for 2,3,7,8-tetrachlorodibenzo-p-dioxin equivalents) congeners once during the dry weather and once during the wet weather each year for a period of three (3) consecutive years. The congeners and Toxic Equivalent Factors can be found in Table 4 of the *"Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California."* A copy of Table No. 4 is shown below.

Table 4

<u>Congener</u>	<u>TEF</u>
2,3,7,8- Tetra-Chlorinated dibenzodioxins (CDD)	1
1,2,3,7,8- Penta-CDD	1.0
1,2,3,4,7,8- Hexa-CDD	0.1
1,2,3,6,7,8- Hexa-CDD	0.1
1,2,3,7,8,9- Hexa-CDD	0.1
1,2,3,4,6,7,8- Hepta-CDD	0.01
Octa-CDD	0.0001
2,3,7,8- Tetra- Chlorinated dibenzofurans (CDF)	0.1
1,2,3,7,8- Penta-CDF	0.05
2,3,4,7,8- Penta-CDF	0.5
1,2,3,4,7,8- Hexa-CDF	0.1
1,2,3,6,7,8- Hexa-CDF	0.1
1,2,3,7,8,9- Hexa-CDF	0.1
2,3,4,6,7,8- Hexa-CDF	0.1
1,2,3,4,6,7,8- Hepta-CDF	0.01
1,2,3,4,7,8,9- Hepta-CDF	0.01
Octa-CDF	0.0001

The discharger shall report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit<sup>6</sup>, and the measured or estimated concentration. In addition, the discharger shall multiply each measured or estimated congener concentration by its respective Toxic Equivalent Factors<sup>7</sup> value and report the sum of these values. This information shall be submitted as part of the discharger's monitoring reports.

<sup>6</sup> As determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999)

<sup>7</sup> Table 4 Toxic Equivalency Factors (TEFs) for 2, 3, 7, 8- TCDD Equivalents, pg. 27, Policy for Implementation of Toxics, Standard for Inland Surface Waters, Enclosed Bays and Estuaries of California, Adopted March 2, 2000.

## OPERATION AND MAINTENANCE

The discharger shall report the following:

<u>Activity</u>	<u>Units</u>	<u>Reporting</u>
Amount of sodium hypochlorite used	Gallons	Daily <sup>8</sup>
Amount of sodium bisulfite used	Gallons	Daily

The discharger shall inspect and document any operation/maintenance problems by inspecting each unit process. The report shall include a listing of flow metering locations and dates of calibration of each flow meter. The results of the operation and maintenance inspections shall be forwarded to this Regional Board annually.

## PRETREATMENT REPORT

In the event that the discharger is required to implement a pretreatment program then the discharger shall submit reports as required in accordance with Section F. Pretreatment and Appendix - Requirements for Pretreatment Annual Report of the Waste Discharge Requirements.

## SLUDGE MONITORING

The discharger shall report quarterly on the quantity, location and method of disposal of all sludge and similar solid material being produced at the wastewater treatment plant facility.

Sludge that is generated at the treatment facility and removed for disposal shall be sampled and analyzed for the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Arsenic	mg/kg <sup>9</sup>	Grab	Annually
Cadmium	mg/kg	Grab	Annually
Copper	mg/kg	Grab	Annually
Lead	mg/kg	Grab	Annually
Mercury	mg/kg	Grab	Annually
Molybdenum	mg/kg	Grab	Annually
Nickel	mg/kg	Grab	Annually
Selenium	mg/kg	Grab	Annually
Zinc	mg/kg	Grab	Annually
Fecal Coliform	MPN/gram	Grab	Annually

## EFFLUENT TOXICITY TESTING

<sup>8</sup> Daily - Reported monthly with monthly average daily usage calculated.

<sup>9</sup> Mg/kg - milligrams-per-kilogram.

The discharger shall conduct toxicity testing on the effluent as follows:

<u>Test</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Test</u>
Chronic Toxicity	tu <sub>c</sub>	24-Hr. Composite	Quarterly
Acute Toxicity	% survival	24-Hr. Composite	Quarterly

Both test species given below shall be used to measure acute and chronic toxicity:

<u>Species</u>	<u>Effect</u>	<u>Test Duration (Days)</u>	<u>Reference</u>
Fathead Minnow (Pimephales promelas)	Larval Survival	7	EPA/600/4-91/002 (chronic) EPA/600/4-90/027F (acute)
Water Flea (Ceriodaphnia dubia)	Survival; Number of Young	7	EPA/600/4-91/002 (chronic) EPA/600/4-90/027F (acute)

Toxicity Test Reference: Methods for measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition, EPA-600-4-90-027F, August 1993. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water for Freshwater Organisms, EPA-600-4-91-002, July 1994.

Dilution and control waters may be obtained from an unaffected area of receiving waters. Standard dilution is an option and may be used if the above source is suspected to have toxicity greater than 1.0 tu<sub>c</sub>. The sensitivity of the test organism to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

Chronic toxicity shall be expressed and reported as toxic units (tu<sub>c</sub>) where:

$$tu_c = 100/NOEC$$

and the No Observed Effect Concentration (NOEC) is expressed as the maximum percent effluent of test water that causes no observed effect on a test organism, as determined in a critical life stage toxicity test indicated above.

Acute toxicity may be calculated from the results of the chronic toxicity test described above and shall be reported along with the results of each chronic test. Acute toxicity shall be expressed as percent survival of test organism over a ninety-six hour period in 100% effluent.

## REPORTING

1. The discharger shall report the results of acute and chronic toxicity testing as determined through standard toxicity protocols using 100% effluent.
2. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data should be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
3. The discharger shall report with each sample result the applicable Minimum Level (as described in the California Toxics Policy) and the laboratory current Method Detection Limit, as determined by the procedure in 40 CFR 136 (revised as of May 14, 1999).
4. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurement(s);
  - b. The individual(s) who performed the sampling or measurement(s);
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or methods used; and
  - f. The results of such analyses.
5. The results of any analysis of samples taken more frequently than required at the locations specified in this Monitoring and Reporting Program\_\_ shall be reported to the Regional Board.
6. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.
7. Each report shall contain the following statement:

“I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.”
8. A duly authorized representative of the discharger may sign the documents if:
  - a. The authorization is made in writing by the person described above; and
  - b. The authorization specified an individual or person having the responsibility for the overall operation of the regulated disposal system; and
  - c. The written authorization is submitted to the Regional Board's Executive Officer.
9. Reporting of any failure in the treatment system shall be as described as in Provision No. 29 to the Regional Board Office and to the Office of Emergency Services.
10. Daily, weekly, and monthly monitoring reports shall be submitted to the Regional Board by the 15<sup>th</sup> day of the following month. Quarterly monitoring reports shall be submitted by January 15, April 15, July 15, and October 15 of each year. Annual reports shall be submitted by January 15 of each year.
11. Submit reports to:

California Regional Water Quality Control Board

Colorado River Basin Region  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260

A copy of the monitoring report shall also be sent to:

Regional Administrator  
U.S. Environmental Protection Agency  
Region 9, Attn: 65MR, W-3  
75 Hawthorne Street  
San Francisco, CA 94105

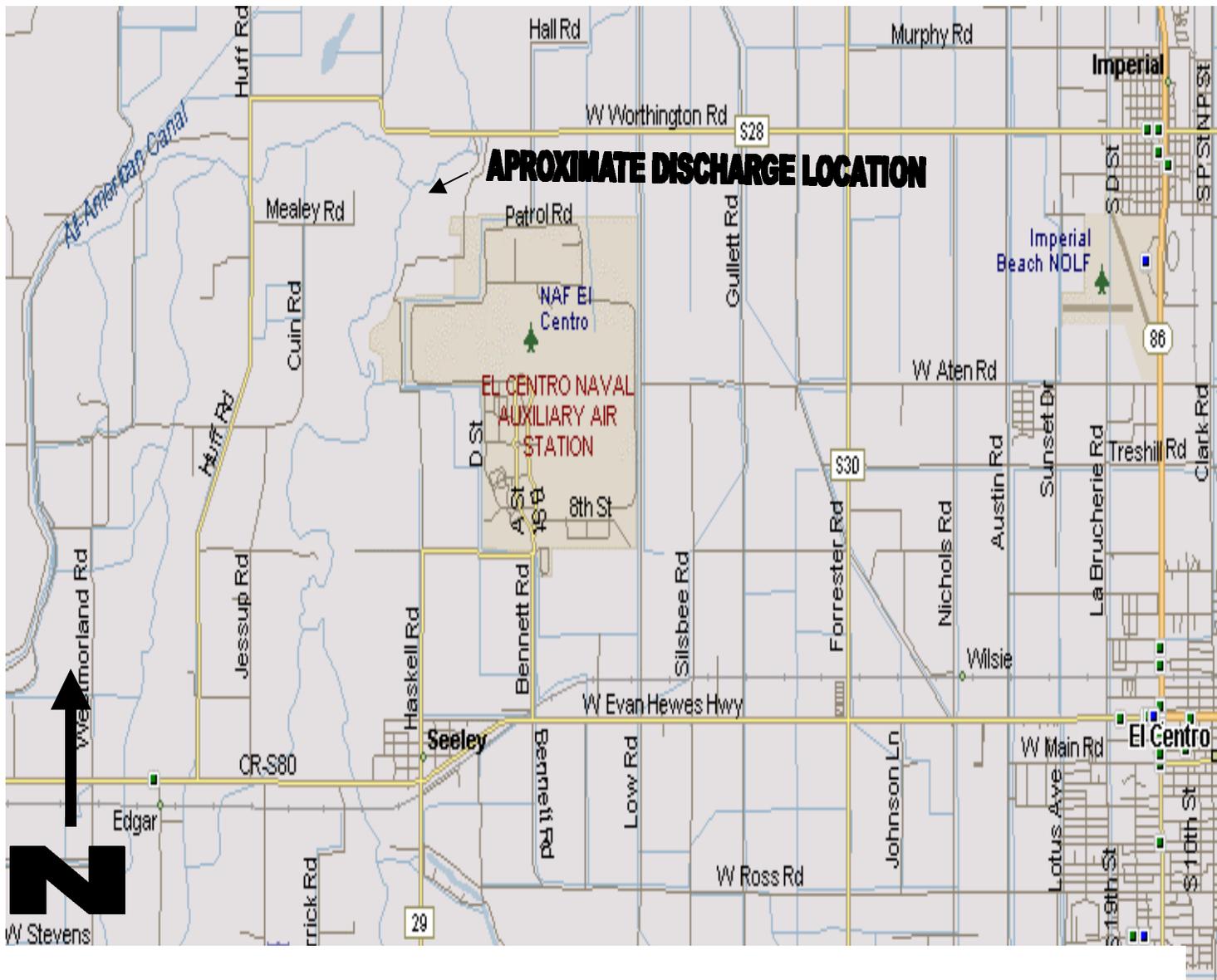
Duplicate copies of quarterly and annual sludge monitoring reports shall be submitted to:

County of Imperial  
Public Health Department  
Local Enforcement Agency  
939 Main Street, B7  
El Centro, California 92243-2843  
Attention: Jeff Lamoure

Ordered by: \_\_\_\_\_  
Executive Officer  
\_\_\_\_\_  
March 14, 2001  
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7

No Scale



SITE MAP

UNITED STATES NAVY – NAVY REGION SOUTHWEST, OWNER  
BROWN AND ROOT SERVICES CORPORATION, OPERATOR  
U.S. NAVAL AIR FACILITY, WASTEWATER TREATMENT PLANT  
West of El Centro – Imperial County  
Discharge Location: N ½ of Section 25, T15S, R12E, SBB&M

Board Order No. 01-001